

METHOD AND APPARATUS FOR ACCURATE DIGITAL-TO-ANALOG  
CONVERSION

ABSTRACT OF THE DISCLOSURE

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A digital-to-analog converter includes a plurality of current sources, a differential amplifier, and a plurality of switching modules. The plurality of switching modules is operably coupled to the plurality of current sources and the digital amplifier module provides the analog output for the digital-to-analog converter. Each of the plurality of switching modules has a corresponding current source of the plurality of current sources, where a 1<sup>st</sup> set of the plurality of switching modules couples the corresponding current sources to the differential amplifier module in a 1<sup>st</sup> manner based on a digital input value and a 2<sup>nd</sup> set of the plurality of switching modules couples the corresponding current sources to the differential amplifier in a 2<sup>nd</sup> manner based on the digital input values such that, over time, errors introduced by the coupling in the 1<sup>st</sup> manner substantially compensates for errors introduced by the coupling in the 2<sup>nd</sup> manner.